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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

Pacific Northwest Forest Experiment Station.

FOREST STATISTICS FOR BAKER COUNTY.

By

W. H. Bolles.

CALIFORNIA FOREST AND RANGE
EXPERIMENT STATION
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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PACIFIC NORTHWEST FOREST EXPERIMENT STATION

ADDRESS REPLY TO
DIRECTOR
AND REFER TO

424 U. S. COURT HOUSE,
MAIN AND SIXTH STREETS,
PORTLAND, OREGON

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R-NW
Forest Survey
County Statistics

May 7, 1937

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Director
California Forest Experiment Station
332 Giannini Hall
Berkeley, California

Dear Mr. Kotok:

A copy of "Forest Statistics for Baker County, Oregon", the fifteenth of a series of Forest Survey mimeographed reports for eastern Washington and eastern Oregon, is enclosed for your files. The explanatory text, "The Forest Survey of Eastern Oregon and Eastern Washington", which accompanied the first report, should be referred to for detailed type descriptions and methods of survey procedure.

Previously forest statistics have been released for all counties in western Oregon and western Washington; for Klamath, Wasco, Jefferson, Harney, Lake, Deschutes, and Morrow Counties in eastern Oregon, and for Yakima, Klickitat, Chelan, Kittitas, Okanogan, Ferry, and Walla Walla, Columbia, Garfield, and Asotin Counties in eastern Washington. Additional copies of these reports are available for distribution.

Very truly yours,

THORNTON T. MUNGER, Director

By R. W. Cowlin
Acting

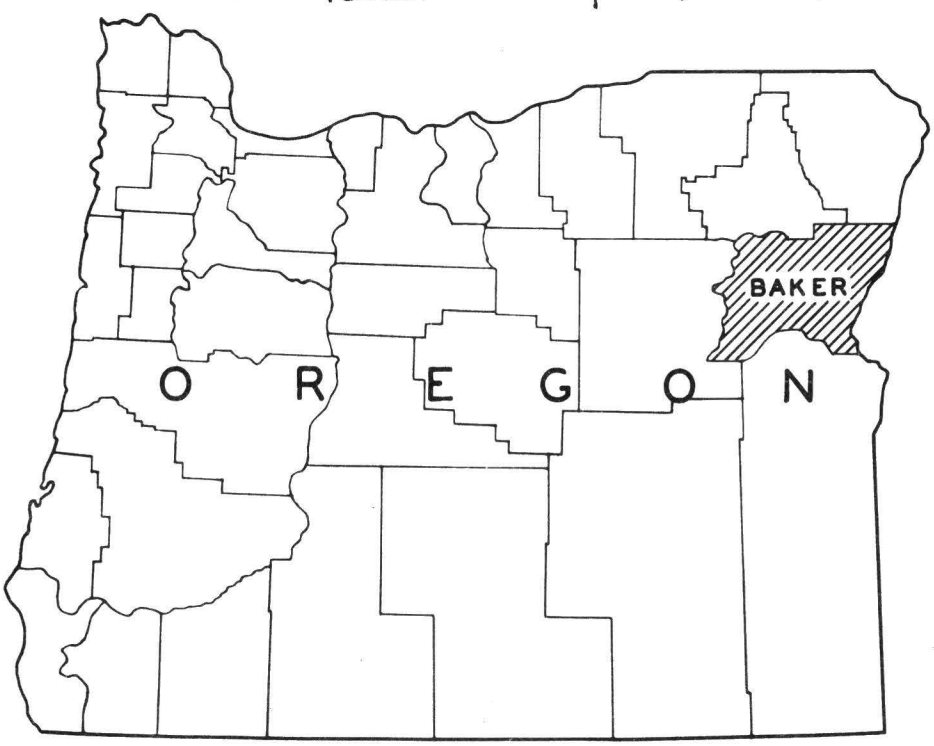
Enclosure

CALIFORNIA FOREST & RANGE EXPERIMENT STATION
330 GIANNINI HALL, UNIVERSITY OF CALIFORNIA
BERKELEY, CALIF.

FOREST STATISTICS
FOR
BAKER COUNTY, OREGON

FROM THE INVENTORY PHASE OF THE FOREST SURVEY

Forest survey Report 44



U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
PACIFIC NORTHWEST FOREST EXPERIMENT STATION
THORNTON T. MUNGER, DIRECTOR

H. J. ANDREWS, IN CHARGE OF FOREST SURVEY R. W. COWLIN, ASSISTANT

W. H. BOLLES, IN CHARGE OF FIELD AND OFFICE WORK
IN BAKER COUNTY

PORTLAND, OREGON MAY 10, 1937

CALIFORNIA FOREST & RANGE EXPERIMENT STATION
330 GIANNINI HALL, UNIVERSITY OF
BERKELEY, CALIF.

FIGURE 1

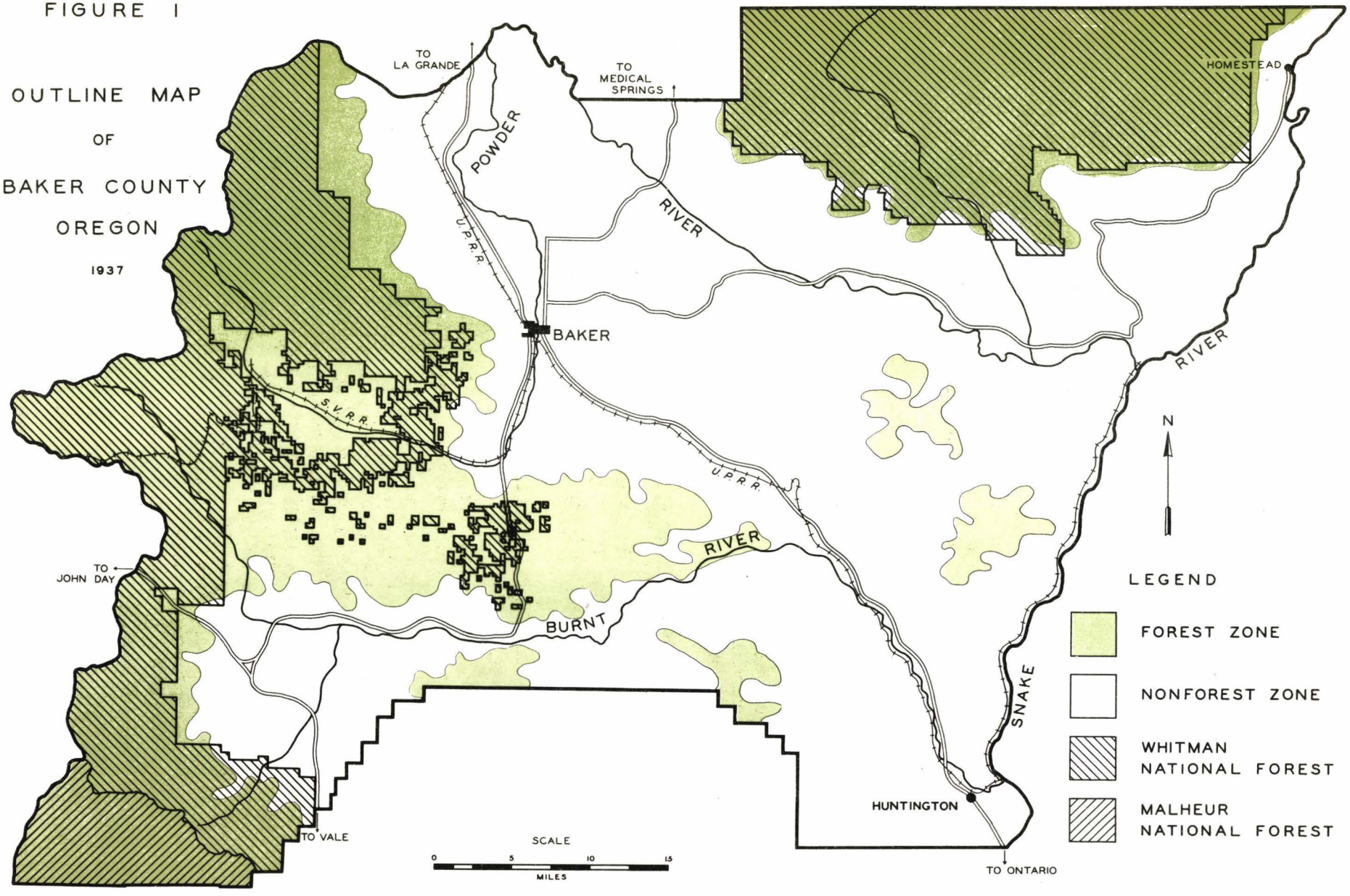
OUTLINE MAP

OF

BAKER COUNTY

OREGON

1937



FOREST STATISTICS FOR BAKER COUNTY, OREGON

By W. H. Bolles[1]

This is the initial report of a forest survey of Baker County, Oregon, which was conducted during the summer and fall of 1936 by the Forest Service as part of a national survey of the forest resources.[2] An explanatory test, "The Forest Survey of Eastern Oregon and Eastern Washington", outlining the procedure followed in the survey and a definition of the types used should be read in connection with this report.

Location and Description of County

This county is in the Blue Mountain region of northeastern Oregon. It is bounded on the east by the Snake River which here forms a part of the Oregon-Idaho boundary, on the north by Wallowa and Union Counties, on the west by Grant County, and on the south by Grant and Malheur Counties. It is in the form of an irregular rectangle averaging approximately 50 miles from north to south and 70 miles from east to west. The area is about 1,975,040 acres.

The topography is mountainous and the northeastern part of the county, occupied by the Wallowa Mountains, is extremely rugged. Only this portion and the Elkhorn Range north of Sumpter contain considerable areas too high or too rocky to support commercial forests. In the valley of the Powder River in the northwestern part

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[1] THE FIELD WORK OF THE FOREST SURVEY OF BAKER COUNTY WAS DONE BY W. H. BOLLES, H. M. WOLFE, AND C. S. SMITH. THE DATA WERE COMPILED BY W. H. BOLLES, A. W. HODGMAN, B. P. BENNETT, H. H. ARMSTRONG, R. S. STEADMAN, AND C. L. DE WOLFE.

[2] OREGON AND WASHINGTON WERE DIVIDED FOR PURPOSES OF THE SURVEY INTO TWO REGIONS, (1) THE DOUGLAS FIR REGION, CONSISTING OF THAT PART OF BOTH STATES WEST OF THE SUMMIT OF THE CASCADE RANGE, AND (2) EASTERN OREGON AND EASTERN WASHINGTON, THAT PART OF BOTH STATES EAST OF THE SUMMIT OF THE CASCADE RANGE. EACH REGION WAS DIVIDED INTO FOREST SURVEY UNITS COMPOSED OF ONE OR MORE COUNTIES. AT A LATER DATE A REPORT WILL BE ISSUED FOR EACH SURVEY UNIT PRESENTING A TEXTUAL DESCRIPTION OF THE UNIT, DETAILED INVENTORY SUMMARIES, AND STATISTICS OF GROWTH AND DEPLETION ANALYZED IN THE LIGHT OF THE INVENTORY. A REGIONAL REPORT WILL ALSO BE ISSUED WHICH WILL PRESENT AND DISCUSS FINDINGS FOR THE REGION AS A WHOLE. THE REGIONAL REPORT WILL INCLUDE AN INTERPRETATION OF THE FOREST SURVEY DATA AS RELATED TO OTHER ECONOMIC DATA AND A COMPREHENSIVE ANALYSIS OF THE REGIONAL FOREST SITUATION FROM BOTH A PHYSICAL AND AN ECONOMIC STANDPOINT.

of the county the topography is level to rolling. Elevations within the county range from approximately 1,500 feet on the Snake River to 9,097 feet at the summit of Rock Creek Butte.

Climatic conditions vary widely, being influenced to a great degree by the elevation. Semi-arid conditions prevail in the lower portions of the county as evidenced by an average annual precipitation at Baker of 13.21 inches for the past 47 years. On the eastern border of the county at Huntington it has averaged only 12.36 inches for a 25-year interval. The precipitation is greater in the mountainous parts of the county and it is believed to average 20 to 40 inches annually throughout the greater part of the forest zone. Here most of the precipitation comes in the form of snow. Along the Snake River, the growing season is from early April to late October while in the mountains killing frosts occur during every month in the year.

The county is drained by the Snake River and its tributaries whose prevailing direction of drainage is easterly. Powder River and Burnt River are the principal streams. The latter is entirely within the county, while the former also drains a small area in Union County. There is also a considerable number of creeks which empty directly into the Snake River. During much of the year a great deal of water from all of these streams is used for irrigation and placer mining.

The railroads and State highways within the county are shown in figure 1. The main line of the Union Pacific System traverses the county, and it is parallelled by the Oregon Trail Highway which is the principal highway from Oregon to eastern points outside of the State. In addition there are numerous dirt roads which make practically all parts of the county accessible to motor travel. The air transportation route from Portland to points east follows the Union Pacific railroad.

According to the Bureau of the Census Baker County had a population of 16,754 in 1930 which was a decrease of 6.6 percent since 1920. The town of Baker has a population of 7,858 and is the principal business and industrial center. Huntington, with a population of 803 in 1930, is the only other town of more than 500 persons.

Economic Development

Baker County has a more diversified economic development than most of the counties in eastern Oregon. Its wealth comes principally from three sources, agriculture, mining, and the production of forest products.

Agriculture is the most important economic pursuit and in 1930 directly employed about 35 percent of the gainful workers[3/]. Approximately 12 percent were employed in forestry and the forest industries, and 20 percent in the extraction of minerals. In recent

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3/ THE FIFTEENTH CENSUS OF THE UNITED STATES.

years there has been a mining boom and it is believed that the number of gainful workers engaged in the extraction of minerals has more than doubled since 1930.

Agriculture

Agricultural development is largely confined to certain favorable localities widely separated by areas of forest or semi-arid grazing land. The most important of these is in the valley of the Powder River between Baker and North Powder. The other agricultural areas are in the eastern part of the county near Huntington, in the Burnt River Valley, in Pine Valley, and in Sumpter Valley on the Powder River. The Bureau of the Census for January 1, 1935, showed a total farm area of 732,099 acres of which 141,360 acres were available for crops. The irrigated land from which crops were harvested in 1934 aggregated 79,735 acres.

Stock raising provides the principal source of farm income, but considerable income is also derived from dairying, small grains, hay, and general farming. In 1935 there were nearly 68,000 head of cattle and about 79,000 head of sheep in Baker County. Malheur and Harney are the only counties in Oregon that have more cattle. Most of the stockmen are dependent upon the surrounding open range or the national forest lands for forage during the more favorable months of the year. A considerable number of livestock owned in other counties is grazed here during a part of the year.

Mining

Mining is the oldest industry in Baker County. Gold was discovered at Griffin's Gulch, near where the town of Baker now stands, in the fall of 1861. The very rich Auburn placers, also in this vicinity, were located early in the spring of 1862. Other important placer fields were soon discovered at Rye Valley, Clark Creek, Mormon Basin, Sumpter Valley, and the Virtue diggings east of Baker. The richest and most easily worked placers were exhausted before the turn of the century and, since the country has been well prospected, it is improbable that important new placer fields will be discovered. Settlers followed the miners and permanent communities were established.

A transcontinental railroad, now part of the Union Pacific System, reached the town of Baker in 1886 and an era of lode mining followed. This boom culminated in 1902-03; however, there was considerable mining activity until the outbreak of the World War when mounting costs caused the marginal mines to cease operation. Mining remained at a low ebb until stimulated by rising gold prices in 1933. Some of the better known mines are the Columbia, Rainbow, Virtue, Cornucopia, Golconda, Highland, and North Pole. The first three were large producers, but have been idle for many years. The Cornucopia is now operating and is generally believed to have a brilliant future.

The production of precious minerals is greater in Baker County than in any other county in Oregon. The production, principally of gold and silver, for 1934 was valued at $427,269 which was 35 percent of the total for the State. Oregon's gold production has increased over 50 percent since then and Baker County has accounted for a large part of this. The bulk of the silver and copper produced in the State is mined in this county.

The Nonforest Land

There are 1,224,360 acres of nonforest land which is about 62 percent of the total area of the county (tables 2 and 3). Its generalized distribution is shown in figure 1. Most of the nonforested area consists of range land in the eastern, southern, and central parts of the county. Approximately 141,000 acres[4] or slightly less than 12 percent is agricultural crop land or plowable pasture.

The Forests

Standing timber is one of the important natural resources of Baker County. The forest lands aggregate 750,680 acres which is approximately 38 percent of the total area. The general location of this resource is shown in figure 1.[5]

Ponderosa pine is the most valuable and most abundant forest tree in the county. It occurs for the most part in pure stands bordering the open range lands in a belt from about one to ten miles in width. In the west-central part of the county the pine forests extend to the summit of the Blue Mountains, which are relatively low in this locality. The remainder of the forest area embraces the more rugged portions of the Blue Mountains and the Wallowa Mountains. Here the commercial stands are represented by the Douglas fir and upper-slope mixture types which occur on the more favorable locations. In this area is found most of the noncommercial forest types which include lodgepole pine, subalpine, and noncommercial rocky areas. The remainder of the noncommercial forest lands consist of juniper and mountain mahogany found at the lower limits of the forest zone.

4/ ACCORDING TO THE U. S. CENSUS OF AGRICULTURE OF 1935.

5/ LOCATION AND EXTENT OF FOREST TYPES ARE SHOWN BY FOREST SURVEY TYPE MAPS. INFORMATION REGARDING 1-INCH-TO-THE-MILE COUNTY TYPE MAPS AND ¼-INCH-TO-THE-MILE LITHOGRAPHED STATE TYPE MAPS AND HOW THEY MAY BE OBTAINED WILL BE FURNISHED UPON REQUEST. ADDRESS DIRECTOR, PACIFIC NORTHWEST FOREST EXPERIMENT STATION, 423 U. S. COURT HOUSE, PORTLAND, OREGON.

Forest Types

A total of 23 forest cover types occupying an area of 750,680 acres was mapped in Baker County. Data on forest type areas, together with data on areas of nonforest land (types 1 and 2) where these were within the forest zone, are presented in tables 2 and 3 and figure 4. The location and distribution of the various forest cover types can best be determined by study of the inch-to-the-mile forest survey type map of the county.

A. Saw-Timber Types

Coniferous stands of saw-timber size (exclusive of lodgepole pine) have an aggregate area of 442,250 acres and comprise nearly 60 percent of the total forest land in the county. About one-twelfth of these stands are immature and it will be years before they are ripe for cutting. Part of these immature stands have been selectively logged, leaving a volume of 1,000 board feet or more per acre. In table 3 the saw-timber types have been classified into two groups, ponderosa pine and other species.

The ponderosa pine types aggregate 332,155 acres, or slightly over 75 percent of the total coniferous saw-timber stands. Included here are 42,815 acres of pine woodland (type 5½), which is a mature type, but because of the low volume per acre (generally less than 1,000 board feet) it has little commercial significance. Pure ponderosa pine (type 20.5) occupies 215,165 acres and is the largest and most important forest type. It contains, from the standpoint of quality and location, the most desirable stumpage found in the county. The volume per acre varies greatly, but in general ranges from 7,000 to 12,000 board feet per acre. These stands are of excellent quality and the loss from defect will not exceed 5 percent. The forests containing 50 to 80 percent of mature ponderosa pine (type 20) are similar to the pure pine type, except that other species form a somewhat greater percentage of the stand.

The pine mixture (type 27) occurs in the upper altitudinal limits of the ponderosa pine zone. The majority of the volume consists of other species, principally Douglas fir, western larch, and lowland white fir; however, these stands also contain a considerable volume of ponderosa pine, hence are included in the pine group.

Type 21 is a stand of immature ponderosa pine, commonly occurring upon cutover lands. The trees are of sawlog size, but small, generally 12 to 22 inches in d.b.h. There are 35,130 acres of this type, practically all the result of cutting in mature pine forests, but where the stands left after logging equal or exceed 1,000 board feet per acre.

Upper -slope mixture forests (type 27½) occur near the upper altitudinal limits of the ponderosa pine zone. There are 107,140 acres of this type which is composed of species which favor the cool and relatively moist sites. Western larch is the principal species, frequently comprising more than half of the net volume of the stand. The associate species are Douglas fir, lowland white fir, lodgepole pine, Engelmann spruce, and alpine fir. The characteristic feature of these stands is the presence of a large gross volume of lowland white fir which is so very defective that the net volume is relatively small.

The Douglas fir types, 8 and 9A, also occur near the upper limits of the ponderosa pine zone. These types are largely confined to the Wallowa Mountains in the northeastern part of the county. There are 2,955 acres of this type which at the present time is largely inaccessible and of little commercial importance.

B. Seedling, Sapling, and Pole Types

The commercial forest types less than 12 inches in d.b.h. total 133,055 acres and like the saw-timber types have been segregated into ponderosa pine and other species (see table 3). The ponderosa pine group, composed of types 22 and 28, is the larger with an area of 118,895 acres. Approximately 96 percent consists of lands which have been cut over and restocked with ponderosa pine, mostly in pure stands. The bulk of these stands are in the vicinity of Sumpter Valley and on the North Fork of Burnt River in or adjacent to the Whitney Valley. Some of the best second-growth ponderosa pine stands to be found in the State are located in Sumpter Valley. These are upon lands which were cut over between 1890 and 1910. Areas cut over during the past two decades are not restocking so well as those cut earlier.

Conifers less than 12 inches in d.b.h., other than ponderosa and lodgepole pine, occupy 14,160 acres. The types in this group, 9B, 10, and 28½, generally occur at elevations of over 6,000 feet in remote localities and are of little economic value.

C. Deforested Types

These include the nonrestocked cut-over areas and the deforested burns. There are only 3,705 acres of these types, most of which consists of cut-over areas that are now nonstocked because the reproduction has been destroyed by fire.

D. The Noncommercial Types

The noncommercial forest land consists of two types. The largest of these, type 33, comprises the subalpine forests which lie above the altitudinal limits of the commercial timber zone. The other, type 38, includes the scattered scrubby stands which are noncommercial in character, generally due to rocky or sterile site conditions, but within the altitudinal limits of the commercial timber zone. The combined area of these types is 119,160 acres and approximately 83 percent is in national forest ownership. Forests of this nature, while practically valueless for the production of commercial timber, add much to the scenic, recreational, and watershed resources of the county.

E. Other Forest Types

Included here are the hardwood types (31 and 31.5) and the lodgepole pine types (26 and 26A). These types aggregate 33,425 acres and nearly 96 percent of this is lodgepole pine. This species occurs at relatively high altitudes (over 7,500 feet) and is largely confined to the northwestern and southwestern corners of the county. The chief products obtained from these stands are fuel wood and poles. The hardwoods consist principally of black cottonwood which is found along the larger streams and within or adjacent to the agricultural districts.

Forest Ownership

The forest survey recognizes 12 ownership classes and 7 of these were found in Baker County. The ownership of forest lands is shown diagrammatically in figure 3. The national forest ownership class is the largest and contains 468,460 acres or 82.4 percent of the forested area, a small part of which is reserved from cutting. Over one-quarter of the national forest lands are of low quality, consisting of lodgepole pine stands, subalpine forests, and noncommercial rocky areas. Private holdings are also important and comprise a third of the forest land and 30 percent of the total board-foot volume. The other ownership classes are public domain, State, county, and municipal.

Productive Capacity of the Forest Land

A classification of the forest land according to its capacity to produce timber crops is shown in table 4. All of the commercial forest land was ranked on the basis of its capacity to produce either ponderosa pine or Douglas fir. An area of 579,010 acres was so classified and over 78 percent of this was in the ponderosa pine zone. The growing conditions for the ponderosa pine

lands average a medium quality site IV. This corresponds to the median site quality for pine lands in the Blue Mountains. The average height, in feet, of dominant and codominant trees at 100 years of age for site IV is 79 feet. The Douglas fir lands average a poor quality site V, the lowest class recognized in the site classification for this species.

Insect Infestations

Bark beetles have killed a great deal of mature and overmature lodgepole pine during recent years. The losses now seem to be checked and the epidemic has probably run its course. Occasional beetle-killed ponderosa pine trees were noted, but there are no important infestations in the county at the present time.

Volume of Merchantable Timber

The total volume of merchantable timber, trees 12 inches and larger in d.b.h., in Baker County is 3,623,226 M board feet. The distribution of this volume by species and ownership class is shown in table 1 and in figure 2. Ponderosa pine is the principal species and comprises over two-thirds of the total volume. About an eighth of the total volume is Douglas fir and slightly over a tenth is western larch. These three species form 91.3 percent of the total volume.

Nearly 69 percent of the stumpage is in national forest ownership while slightly over 30 percent is private. The national forests have about 62 percent of the ponderosa pine and about 82 percent of the other species. A small portion of the national forest timber has been reserved from cutting. Ponderosa pine is the most valuable species and constitutes approximately 82 percent of the privately owned stumpage.

Forest Industries

Logging

Logging operations are confined to the ponderosa pine types. Generally the better quality Douglas fir and western larch found in these types is cut along with the pine, but the lowland white fir is invariably left standing. On private land the usual cutting practice is to remove all the merchantable pine timber and the stand left after logging is usually less than 1,000 board feet per acre. Horses and tractors are used for skidding. Motor trucks are widely used in transporting the logs to the sawmill, although in some cases the logs are transferred to railroad flat cars for delivery to the mill. Most of the logs cut in the county are

manufactured at local plants situated principally in the town of Baker, the exception being logs which are milled at Pondosa in Union County. The greater part of the logging is done on a contract basis, although some concerns obtain part of their log supply by contract and part by company logging.

In the more densely populated parts of the county there is a strong demand for fuel wood. This provides a market for the mill waste of the plants located in the town of Baker and a demand for limbwood, dead timber, cull trees, and logging waste in some localities. Utilization of this character was most noticeable in the vicinity of Baker and Haines.

Wood-Using Industries

Forest exploitation in Baker County was started by the settlers many years ago to obtain fuel, lumber, and other forest products for local use. Somewhat later came the construction of a transcontinental railroad and there was a demand for ties and bridge timbers. In 1896 a narrow gage railroad, built primarily for logging, was completed from the town of Baker to Sumpter. Several years prior to that date the railroad had reached the excellent pine forests at the lower end of Sumpter Valley and commercial lumbering operations on a fairly large scale were initiated. During the early years the bulk of this lumber was shipped to Ogden and Salt Lake City. Since the advent of commercial lumbering in the early nineties approximately 36 percent of the commercial pine land in the county has been cut over.

During 1936 the sawmills of Baker County had a capacity of about 275 M board feet per 8-hour shift. The average annual cut for the past 10 years ranges from about 30 to 40 million board feet. This does not include the lumber cut at Bates which is brought to Baker for seasoning and remanufacture. Over 95 percent of the cut is ponderosa pine, the remainder being Douglas fir and western larch. By far the greater part of the lumber cut here is shipped out of the State. A small quantity of specialty products such as box shook, molding, and lath is also produced.

During the earlier years of the past decade the cut was much heavier than at present, but during the depression years the cut decreased until it was less than could be supported on a sustained yield basis. Under conditions such as now exist the possibilities for sustained yield are quite favorable. It seems probable that eventually mill capacity will be somewhat curtailed and production shifted as the virgin stands in some parts of the county become exhausted and others, now inaccessible, are made available. Some, but not all, of the land owners are exchanging their cutover lands with the Federal Government for stumpage and the area of the Whitman National Forest is being constantly augmented by this means.

Other Forest Uses

The forests of Baker County are useful as a source of raw material for the wood-using industries, as a conservator of the water that supplies the irrigated districts, and as a recreational asset. One of the most important functions of the forests is to regulate the water supply so essential for agriculture and mining. Trees enhance the scenic features and provide shelter and sometimes food for bird and animal life. During the summer months the mountainous timbered areas afford the possibility of temporary escape from the heat common to the lower elevations.

FOREST STATISTICS FOR BAKER COUNTY, OREGON
FROM INVENTORY PHASE OF FOREST SURVEY

TABLE 1. VOLUME OF TIMBER BY SPECIES AND OWNERSHIP CLASS
DATA CORRECTED TO JANUARY 1, 1937

TREES 12" AND MORE IN D.B.H.
THOUSANDS OF BOARD FEET, LOG SCALE, SCRIBNER RULE[1/]

SURVEY SYMBOL	SPECIES[2/]	PRIVATE	STATE, AVAILABLE FOR CUTTING	COUNTY	MUNICIPAL	FEDERAL			TOTAL
						PUBLIC DOMAIN	NATIONAL FOREST AVAILABLE FOR CUTTING	NATIONAL FOREST RESERVED FROM CUTTING	
Y	PONDEROSA PINE	894,505	3,295	7,407	766	34,114	1,529,478		2,469,565
W	WESTERN WHITE PINE & WHITE BARK PINE						55		55
LP	LODGEPOLE PINE	494	5			22	31,918		32,439
DF	DOUGLAS FIR	107,401	592	856	215	3,652	354,538		467,254
WF	LOWLAND WHITE FIR & WHITE FIR	30,422	125	26	77	475	190,868	130	222,123
AF	ALPINE FIR	45					9,726	750	10,521
WL	WESTERN LARCH	56,515	200	132	167	1,268	312,655	30	370,967
ES	ENGELMANN SPRUCE	1,673					46,874	240	48,787
BC	NORTHERN BLACK COTTONWOOD	971	4				540		1,515
	TOTAL	1,092,026	4,221	8,421	1,225	39,531	2,476,652	1,150	3,623,226

1/ ADDITIONAL VOLUMES THAT WERE DETERMINED IN CORDS (A) NORTHERN BLACK COTTONWOOD 1,900 CORDS, (B) WESTERN JUNIPER 4,300 CORDS, AND (C) MOUNTAIN MAHOGANY 200 CORDS.

2/ SPECIES NOT LISTED HERE WHICH OCCUR IN THE COUNTY, BUT IN NEGLIGIBLE QUANTITIES ONLY, ARE ROCKY MOUNTAIN RED CEDAR (JUNIPERUS SCOPULORUM), ASPEN, ALDER, AND BIRCH.

FOREST STATISTICS FOR BAKER COUNTY, OREGON
FROM INVENTORY PHASE OF FOREST SURVEY

TABLE 2. AREA, IN ACRES, OF ALL FOREST COVER TYPES, BY OWNERSHIP CLASS
DATA CORRECTED TO JANUARY 1, 1937

SURVEY TYPE NO.	TYPE DEFINITION	PRIVATE	STATE, AVAILABLE FOR CUTTING	COUNTY	MUNICIPAL	FEDERAL			TOTAL
						PUBLIC DOMAIN	NATIONAL FOREST AVAILABLE FOR CUTTING	NATIONAL FOREST RESERVED FROM CUTTING	
	WOODLAND:								
5B	SCATTERED JUNIPER: JUNIPER OR MOUNTAIN MAHOGANY FORESTS OCCUPYING 5 TO 10% OF THE LAND AREA	11,475	330	45		6,120	1,115		19,085
5½	PONDEROSA PINE WOODLAND: SCATTERED STANDS OF MATURE PONDEROSA PINE ON UNFAVORABLE SITES	26,810	430	245		5,435	9,895		42,815
	PONDEROSA PINE: FORESTS CONTAINING 50% OR MORE OF PONDEROSA PINE								
20	PONDEROSA PINE, LARGE: FORESTS CONTAINING 50 TO 80% OF PONDEROSA PINE, MORE THAN 22" DBH	3,070	30			95		18,495	21,690
20.5	PURE PONDEROSA PINE, LARGE: FORESTS CONTAINING 80% OR MORE OF PONDEROSA PINE, MORE THAN 22" DBH	82,945	265	660	95	4,330	126,870		215,165
21	PONDEROSA PINE, SMALL: 12 TO 22" DBH	21,270		55		300	13,505		35,130
22	PONDEROSA PINE SEEDLINGS, SAPLINGS, AND POLES: LESS THAN 12" DBH	59,185	830	345		1,395	47,805		109,560
	PINE MIXTURE: MIXED FORESTS CONTAINING 20 TO 50% OF PONDEROSA PINE								
27	PINE MIXTURE, LARGE: 12" OR MORE DBH	2,255	20	45		165	14,870		17,355
28	PINE MIXTURE, SMALL: LESS THAN 12" DBH	5,875	10			30	3,420		9,335
	DOUGLAS FIR: FORESTS CONTAINING 60% OR MORE OF DOUGLAS FIR								
8	DOUGLAS FIR, LARGE SECOND GROWTH: 22 TO 40" DBH	935				40	370		1,345
9A	DOUGLAS FIR, LARGE POLES: 12 TO 20" DBH	665	70				875		1,610
9B	DOUGLAS FIR, SMALL POLES: 6 TO 10" DBH	670	85			500	160		1,415
10	DOUGLAS FIR, SEEDLINGS AND SAPLINGS: LESS THAN 6" DBH	150							150
	UPPER-SLOPE MIXTURE: MIXED FORESTS OF WESTERN LARCH, DOUGLAS FIR, ENGELMANN SPRUCE, LOWLAND WHITE FIR, ALPINE FIR, LODGEPOLE PINE, OR WHITE BARK PINE; OCCASIONALLY OTHER SPECIES								
27½	UPPER-SLOPE MIXTURE, LARGE: 12" OR MORE DBH	14,125	5		60	205	92,475	270	107,140
28½	UPPER-SLOPE MIXTURE, SMALL: LESS THAN 12" DBH	4,375	60	115		790	6,710	545	12,595
	LODGEPOLE PINE: FORESTS CONTAINING 50% OR MORE OF LODGEPOLE PINE								
26	LODGEPOLE PINE, MEDIUM: 6 TO 10" DBH	835					26,370	5	27,210
26A	LODGEPOLE PINE, SMALL: LESS THAN 6" DBH	1,345					3,475		4,820
	HARDWOOD: FORESTS CONTAINING 50% OR MORE OF NORTHERN BLACK COTTONWOOD AND ASPEN								
31.5	HARDWOODS, LARGE: 12" OR MORE DBH	195							195
31	HARDWOODS, SMALL: LESS THAN 12" DBH	1,200							1,200
33	SUBALPINE: FORESTS AT UPPER LIMITS OF TREE GROWTH, USUALLY UNMERCHANTABLE	4,165				3,675	59,420	8,780	76,040
	NONRESTOCKED CUTOVERS: LOGGED AREAS NOT SATISFACTORILY RESTOCKED AND NOT CARRYING A RESIDUAL STAND OF 1 M OR MORE PER ACRE								
35A	CUT SINCE BEGINNING OF 1920	795				45	900		1,740
35B	CUT BEFORE 1920	450				20	700		1,170
	DEFORESTED AREAS: NONRESTOCKED AREAS DEFORESTED OTHERWISE THAN BY CUTTING								
37	DEFORESTED BURNS	180				5	585	25	795
38	NONCOMMERCIAL ROCKY AREAS	8,030	110	5	5	4,150	29,805	1,015	43,120
	TOTALS FOR FOREST LAND	251,000	2,245	1,515	160	27,300	439,325	29,135	750,680
1 & 2	NONFOREST LAND: CULTIVATED, GRASS, SAGEBRUSH, BARRENS, CITIES, UNMEANDERED WATER SURFACES, ETC.	1,151,745 ACRES UNCLASSIFIED BY OWNERSHIP					64,590	8,025	1,224,360
	TOTALS FOR COUNTY						503,915	37,160	1/ 1,975,040

1/ THE TOTAL AREA OF THE COUNTY, ACCORDING TO THE BUREAU OF THE CENSUS, IS 1,975,040 ACRES. OF THIS TOTAL, 823,295 ACRES WAS CLASSIFIED AS TO OWNERSHIP BY THE FOREST SURVEY.

FOREST STATISTICS FOR BAKER COUNTY, OREGON
FROM INVENTORY PHASE OF FOREST SURVEY

TABLE 3. AREA, IN ACRES, OF GENERALIZED FOREST TYPES, BY OWNERSHIP CLASS
DATA CORRECTED TO JANUARY 1, 1937

TYPE DEFINITION		PRIVATE	STATE, AVAILABLE FOR CUTTING	COUNTY	MUNICIPAL	FEDERAL			TOTAL
						PUBLIC DOMAIN	NATIONAL FOREST AVAILABLE FOR CUTTING	NATIONAL FOREST RESERVED FROM CUTTING	
WOODLAND: JUNIPER									
SURVEY TYPE 5B		11,475	330	45		6,120	1,115		19,085
HARDWOOD: COTTONWOOD AND ASPEN									
SURVEY TYPES 31 AND 31.5		1,395							1,395
PONDEROSA PINE 12" OR MORE DBH									
SURVEY TYPES 5½, 20, 20.5, 21, AND 27		136,350	745	1,005	95	10,325	165,140	18,495	332,155
PONDEROSA PINE LESS THAN 12" DBH	ON CUTOVER AREAS	63,410	840	325		1,170	48,585		114,330
SURVEY TYPES 22 AND 28	ON OLD BURNS	1,650		20		255	2,640		4,565
	TOTAL	65,060	840	345		1,425	51,225		118,895
CONIFERS 12" OR MORE DBH OTHER THAN PONDEROSA PINE AND LODGEPOLE PINE									
SURVEY TYPES 8, 9A, AND 27½		15,725	75		60	245	93,720	270	110,095
CONIFERS LESS THAN 12" DBH OTHER THAN PONDEROSA PINE AND LODGEPOLE PINE	ON CUTOVER AREAS	4,125	60	115		390	1,080		5,770
SURVEY TYPES 9B, 10, AND 28½	ON OLD BURNS	1,070	85			900	5,790	545	8,390
	TOTAL	5,195	145	115		1,290	6,870	545	14,160
LODGEPOLE PINE LESS THAN 12" DBH									
SURVEY TYPES 26 AND 26A		2,180					29,845	5	32,030
NONCOMMERCIAL AREAS									
SURVEY TYPES 33 AND 38		12,195	110	5	5	7,825	89,225	9,795	119,160
NONRESTOCKED CUTOVER AREAS AND DEFORESTED BURNS									
SURVEY TYPES 35A, 35B, AND 37		1,425				70	2,185	25	3,705
TOTALS FOR FOREST LAND		251,000	2,245	1,515	160	27,300	439,325	29,135	750,680
NONFOREST LAND									
SURVEY TYPES 1 AND 2		1,151,745 ACRES OF NONFOREST LAND UNCLASSIFIED BY OWNERSHIP					64,590	8,025	1,224,360
TOTALS FOR COUNTY							503,915	37,160	1/ 1,975,040

1/ THE TOTAL AREA OF THE COUNTY, ACCORDING TO THE BUREAU OF THE CENSUS, IS 1,975,040 ACRES. OF THIS TOTAL, 823,295 ACRES WAS CLASSIFIED AS TO OWNERSHIP BY THE FOREST SURVEY.

FOREST STATISTICS FOR BAKER COUNTY, OREGON
FROM INVENTORY PHASE OF FOREST SURVEY

TABLE 4. AREA OF FOREST LAND BY SITE QUALITY
DATA CORRECTED TO JANUARY 1, 1937

TYPE	SITE QUALITY CLASS[1]		AREA			
			ACRES	PERCENTAGE OF-- CONIFEROUS FOREST LAND CLASSIFIED AS TO SITE QUALITY	PERCENTAGE OF-- TOTAL FOREST LAND[2]	PERCENTAGE OF-- TOTAL AREA OF COUNTY
PONDEROSA PINE AND PONDEROSA PINE MIXTURE	PONDEROSA PINE	III	54,100	9.3	7.2	2.7
		IV	293,080	50.6	39.0	14.8
		V	74,145	12.8	9.9	3.8
		VI	33,405	5.8	4.5	1.7
			454,730	78.5	60.6	23.0
DOUGLAS FIR AND UPPER-SLOPE MIXTURE	DOUGLAS FIR	IV	6,214	1.1	0.8	0.3
		V	118,066	20.4	15.7	6.0
			124,280	21.5	16.5	6.3
TOTAL			579,010	100.0	77.1	29.3
LODGEPOLE PINE			32,030		4.3	1.6
JUNIPER[3]			19,085		2.5	1.0
NONCOMMERCIAL ROCKY AREAS			43,120		5.8	2.2
SUBALPINE			76,040		10.1	3.8
HARDWOOD			1,395		0.2	0.1
TOTAL			171,670		22.9	8.7
GRAND TOTAL			750,680		100.0	38.0

1/ THE "SITE QUALITY" OF A FOREST AREA IS ITS RELATIVE PRODUCTIVE CAPACITY, DETERMINED BY CLIMATIC, SOIL, TOPOGRAPHIC, AND OTHER FACTORS. THE INDEX OF SITE QUALITY IS THE AVERAGE HEIGHT OF THE DOMINANT STAND AT THE AGE OF 100 YEARS. SIX SITE QUALITY CLASSES ARE RECOGNIZED FOR PONDEROSA PINE AND FIVE FOR DOUGLAS FIR, CLASS I BEING IN EACH CASE THE HIGHEST. IN THE SURVEY THE PONDEROSA PINE AND DOUGLAS FIR CLASSIFICATIONS, RESPECTIVELY, WERE USED NOT ONLY FOR TYPES OF WHICH THESE SPECIES ARE CHARACTERISTIC COMPONENTS BUT FOR OTHER TYPES FOR WHICH NO SITE QUALITY CLASSIFICATIONS HAVE BEEN DEVELOPED.

2/ THE TOTAL AREA OF THE COUNTY, ACCORDING TO THE BUREAU OF THE CENSUS, IS 1,975,040 ACRES. OF THIS TOTAL, ACCORDING TO FOREST SURVEY DATA, 750,680 ACRES (38.0 PERCENT) IS FOREST LAND AND 1,224,360 ACRES (62.0 PERCENT) IS NONFOREST LAND.

3/ INCLUDES 800 ACRES OF MOUNTAIN MAHOGANY AND 420 ACRES OF JUNIPER AND MAHOGANY MIXTURE.

FOREST STATISTICS FOR BAKER COUNTY, OREGON

FROM INVENTORY PHASE OF FOREST SURVEY

FIGURE 2. DISTRIBUTION OF SAW-TIMBER VOLUME BY SPECIES AND OWNERSHIP CLASS (FROM TABLE 1)

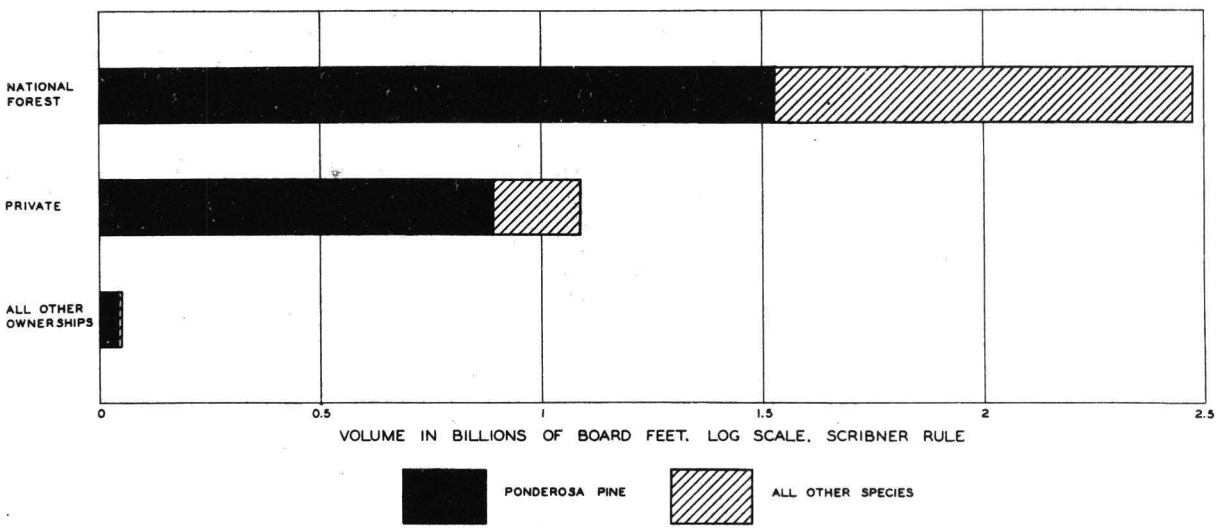

FIGURE 3. OWNERSHIP OF FOREST LAND (FROM TABLE 2)

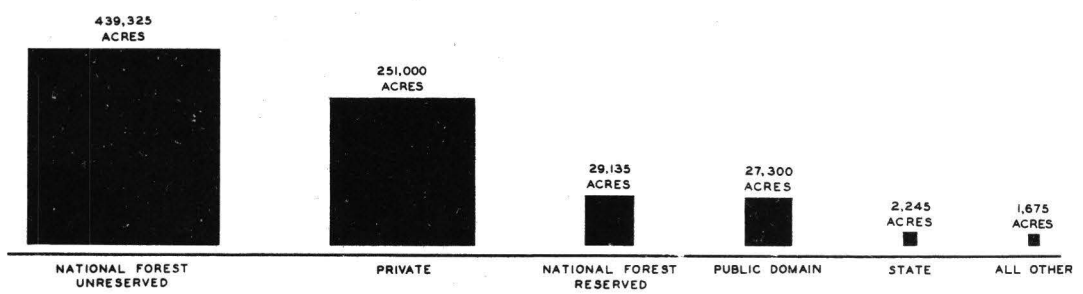

FIGURE 4. DISTRIBUTION OF FOREST LAND BY GENERALIZED TYPES ALL OWNERSHIP CLASSES (FROM TABLE 3)